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ARMY RDT&E BUDGET ITEM JUSTIFICATION (R-2 Exhibit)								DATE February 1999																																																									
BUDGET ACTIVITY 3 - Advanced Technology Development				PE NUMBER AND TITLE 0603607A Joint Service Small Arms Program																																																													
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost																																																							
Total Program Element (PE) Cost	8784	9608	4869	5468	5839	5954	6376	6700	Continuing	Continuing																																																							
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D664 Advanced Lightweight Anti-Armor Weapon Sys	1500	0	0	0	0	0	0	0	0	1500																																																							
<p>A. Mission Description and Justification: The objective of this Program Element (PE) is to demonstrate key technologies leading to more effective small arms weapons and munitions for all Services. The Joint Services Small Arms Program (JSSAP) is designed to overcome the technological barriers associated with small arms/munitions/fire control for individual and crew-served weapons. The goal is to achieve substantial improvements in threat defeat under all environmental conditions while reducing the soldier's load. All JSSAP efforts are based upon the Joint Service Small Arms Master Plan (JSSAMP), and approved Joint Service Science and Technology Objectives (JSSTO), plus Mission Needs Statements and Operational Requirements Documents of the Services. The work in this PE is consistent with the resource constrained Army Science and Technology Master Plan (ASTMP), the Army Modernization Plan, and Project Reliance. The U.S. Army Armament Research, Development and Engineering Center, Picatinny Arsenal, NJ primarily manage these programs. Work in this PE is related to and fully coordinated with efforts in PE 0602623A (Joint Service Small Arms Program), PE 0602624A (Weapons and Munitions Technology), and transitions to JSSAP efforts conducted in PE 0604802A (Weapons and Munitions-Engineering Development) and PE 0604601A (Objective Crew Served Weapon-Engineering Development). Additional transition paths have been established in coordination with Product Manager (PM) Small Arms, USMC Program Manager (PM) Ground Weapons and US Special Operations Command (SOCOM).</p>																																																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">B. Program Change Summary</th> <th style="text-align: center;">FY 1998</th> <th style="text-align: center;">FY 1999</th> <th style="text-align: center;">FY 2000</th> <th style="text-align: center;">FY 2001</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget (FY 1999 PB)</td> <td style="text-align: right;">9015</td> <td style="text-align: right;">5173</td> <td style="text-align: right;">5031</td> <td style="text-align: right;">5691</td> </tr> <tr> <td>Appropriated Value</td> <td style="text-align: right;">9254</td> <td style="text-align: right;">9673</td> <td></td> <td></td> </tr> <tr> <td>Adjustments to Appropriated Value</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>a. Congressional General Reductions</td> <td style="text-align: right;">-239</td> <td style="text-align: right;">-65</td> <td></td> <td></td> </tr> <tr> <td>b. SBIR / STTR</td> <td style="text-align: right;">-174</td> <td></td> <td></td> <td></td> </tr> <tr> <td>c. Omnibus or Other Above Threshold Reductions</td> <td style="text-align: right;">-57</td> <td></td> <td></td> <td></td> </tr> <tr> <td>d. Below Threshold Reprogramming</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>e. Rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Adjustments to Budget Years Since FY 1999 PB</td> <td></td> <td></td> <td style="text-align: right;">-162</td> <td style="text-align: right;">-223</td> </tr> <tr> <td>Current Budget Submit (FY 2000 / 2001 PB)</td> <td style="text-align: right;">8784</td> <td style="text-align: right;">9608</td> <td style="text-align: right;">4869</td> <td style="text-align: right;">5468</td> </tr> </tbody> </table>											B. Program Change Summary	FY 1998	FY 1999	FY 2000	FY 2001	Previous President's Budget (FY 1999 PB)	9015	5173	5031	5691	Appropriated Value	9254	9673			Adjustments to Appropriated Value					a. Congressional General Reductions	-239	-65			b. SBIR / STTR	-174				c. Omnibus or Other Above Threshold Reductions	-57				d. Below Threshold Reprogramming					e. Rescissions					Adjustments to Budget Years Since FY 1999 PB			-162	-223	Current Budget Submit (FY 2000 / 2001 PB)	8784	9608	4869	5468
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BUDGET ACTIVITY 3 - Advanced Technology Development		PE NUMBER AND TITLE 0603607A Joint Service Small Arms Program
Change Summary Explanation: Funding - FY 1999 Congressional increases of \$3.5M for Objective Crew Served Weapon and \$1.0M for Objective Individual Combat Weapon.		

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BUDGET ACTIVITY 3 - Advanced Technology Development				PE NUMBER AND TITLE 0603607A Joint Service Small Arms Program				PROJECT D627		
COST <i>(In Thousands)</i>	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D627 Joint Service Small Arms Program (JSSAP)	7284	9608	4869	5468	5839	5954	6376	6700	Continuing	Continuing

Mission Description and Justification: This project funds several efforts: (1) Objective Individual Combat Weapon (OICW) Advanced Technology Demonstration (ATD), which will provide a 300% to 500% increase in hit probability, the ability to defeat defilade or non-visible targets, and increase effective range to 1000 meters; (2) Objective Crew Served Weapon (OCSW) ATD which will demonstrate the next generation crew-served weapon to replace selected M2 machine guns and MK19 grenade machine guns (GMG), a two-soldier portable system that provides substantial improvements in system effectiveness including the ability to defeat defilade or non-visible targets while featuring a 60-75% weight reduction; (3) controlled penetration ammunition, intended to minimize collateral damage in confined operational environments; and (4) a new Joint service combat shotgun meeting the requirements of all the Services, increasing versatility, and reducing logistics burden.

FY 1998 Planned Program:

- 5913 - Completed OICW technology demonstration by two competitive contractor teams.
- Downselected to a single OICW contractor team.
- 1171 - Conducted initial design refinement and hardware build for OICW Advanced Technology Demonstration (ATD).
- 200 - Updated joint combat shotgun requirements; released request for proposals; obtained candidate hardware.

Total 7284

FY 1999 Planned Program:

- 4631 - Complete hardware build for OICW ATD.
- 567 - Conduct OICW live fire simulation/field test and prepare for Milestone I/II.
- 4168 - Integrate initial system design refinements into OCSW prototype weapon.
- Conduct OCSW 2000 meter dispersion critical test demo; complete precision air burst design effort plus fragmentation study.
- Enhance OCSW fire control application and address interface for combat identification (friend/foe), plus Land Warrior interoperability.
- Complete joint combat shotgun testing, selection and Milestone III.
- 242 - Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Programs.

Total 9608

FY 2000 Planned Program:

- 1208 - Complete OCSW system design refinements of a lightweight (less than 50 lb.) weapon (gun, pintle, traverse and elevation, and tripod).
- 1300 - Demonstrate OCSW fuze setting in rapid-fire (3-5 round burst mode).
- 2361 - Conduct 1000-2000 meter firing tests of OCSW launched, high explosive, airburst munition.

Total 4869

Project D627

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<p>FY 2001 Planned Program:</p> <ul style="list-style-type: none"> • 311 Demonstrate Force XX1 Land Warrior projected interoperability of OCSW. • 1040 Demonstrate OCSW thermal module capability, leveraging OICW and other applicable technologies. • 3157 Complete planning of OCSW safety release testing and fabricate initial testing hardware. • 960 Demonstrate integrated OCSW system: weapon/ammunition/fuze/fire control. <p>Total 5468</p>		
<p>Project D627</p> <p align="center"><i>Page 3 of 4 Pages</i></p> <p align="right">Exhibit R-2A (PE 0603607A)</p>		

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BUDGET ACTIVITY 3 - Advanced Technology Development				PE NUMBER AND TITLE 0603607A Joint Service Small Arms Program				PROJECT D664		
COST (In Thousands)	FY1998 Actual	FY 1999 Estimate	FY 2000 Estimate	FY 2001 Estimate	FY 2002 Estimate	FY 2003 Estimate	FY2004 Estimate	FY2005 Estimate	Cost to Complete	Total Cost
D664 Advanced Lightweight Anti-Armor Weapon Sys	1500	0	0	0	0	0	0	0	0	1500
<p><u>Mission Description and Justification:</u> Congress funded this project to further the demonstration and evaluation of advanced warhead technologies that would significantly increase the individual soldier capability to attack light armored vehicles, and noted the relevance of such technologies to the Objective Crew Served Weapon (OSCW).</p> <p>FY 1998 Planned Program:</p> <ul style="list-style-type: none"> • 1500 - Completed and verified three penetrator material warhead designs capable of meeting OSCW light armor penetration objective. <li style="padding-left: 20px;">- Completed mechanical fuze initiating train for armor penetrating cartridge design applicable to the OSCW. <p>Total 1500</p> <p>FY 1999 Planned Program: This project is not funded in FY 1999.</p> <p>FY 2000 Planned Program: This project is not funded in FY 2000.</p> <p>FY 2001 Planned Program: This project is not funded in FY 2001.</p>										
<div style="display: flex; justify-content: space-between;"> Project D664 Page 4 of 4 Pages Exhibit R-2A (PE 0603607A) </div>										